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ABSTRACT

To identify parental predictors of child maltreatment, 1,400 prenatal patients were interviewed about their attitudes, experiences, and knowledge of childrearing. Interviews with mothers assessed (1) self-perception of mothers' nurturing as children; (2) personality factors of self-image, isolation, and tolerance to stress; (3) social support available from others; (4) positive and negative feelings about her own pregnancy; (5) knowledge of parent skills and philosophy about discipline; (6) alcohol, drug, and health problems in the family; (7) expectations concerning child development; and (8) the life stress of both mother and father. High-risk (HR) mothers were identified in a subsample of 200 mothers interviewed consecutively. To determine whether the interview could predict parenting disorders, the incidence of problems among HR mothers was compared to that in approximately 20 of low-risk (LR) mothers selected by random numbers. Nonorganic failure to thrive (NOFT) was monitored in HR and LR groups, and all mothers were followed for reports of abuse or neglect. To investigate parenting disorders of HR and LR families, 273 HR and 225 LR mothers were selected. Results indicated that the interview may be more effective in identifying families at risk for abuse than for identifying NOFT. Mothers' nurturing during childhood had the highest correlation with HR selection. (The prenatal parent interview and respondents' answers are appended.) (RH)

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PREDICTION OF CHILD MALTREATMENT DURING PREGNANCY

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Abstract. Fourteen hundred prenatal patients volunteered to be interviewed about their attitudes, experiences, and knowledge of child rearing. The purpose of the interview was to identify parental predictors of child maltreatment. Based upon answers, 2/3 were expected to be at high risk for parenting disorders. After delivery, their infants and 225 selected randomly from all remaining mothers were followed in a double blind fashion for evidence of child abuse, neglect, and nonorganic failure to thrive. All three parenting disorders were found significantly more often in the high risk families.

INTRODUCTION

The incidence of reported child abuse and neglect is increasing and as many as 1% of all children may now be abused or neglected by their parents (Light, 1973). Society manages these problems by identifying abuse and neglect after they occur, and then attempting to rehabilitate the parents with or without temporary removal of the child. However, most health related problems are controlled more effectively by primary prevention, especially when therapy to prevent re-occurrences yields marginal results as is often the case for child maltreatment. Actually, preventing abuse before it starts may be easier than stopping it. Many of the factors which apparently predispose to parenting disorders are likely to be increased because of the maltreatment. Being identified as a child abuser, for example, should lower a parent's self esteem, raise the level of stress, increase feelings of isolation, and might promote negative feelings towards the victim. Although many of these factors, such as low self esteem, are likely to be deeply ingrained in the patient's personality, rehabilitation before abuse occurs may be much more effective and better received than that following abuse.

Prevention of child abuse and neglect should involve 3 processes: identification of factors that predispose to child abuse, the detection of high risk parents with the predisposing factors, and correction of deviant predisposing

elements. This report is directed only towards the first two of these processes. The intent was to discover prospectively which factors correlate most highly with subsequent parenting disorders and whether a prenatal interview could identify a high risk population. This prospective approach may provide more valid information than studies of abusive parents after the maltreatment has occurred. The latter retrospective information may be biased because the parents are likely to view themselves and their children differently following the abuse and, faced with legal pressures, they may not be as truthful and willing to participate freely and openly.

METHODS

The study was conducted at a city owned community hospital that provides care to low income families living in Nashville. A standardized interview composed of factors which others have associated with abuse and neglect was administered to 1,400 prospective mothers. The results were scored according to estimated likelihood of parenting disorders and after delivery the families were followed for abuse or neglect.

Development of the interview.

The interview and answers of all 1,400 mothers are presented in the appendix. The following prerequisites were considered

mandatory in its design: it should not take more than 45 minutes to administer; the style and atmosphere should be informal and conducive to revelation of personal information, yet structured for consistency and objectivity when administered by different lay workers; and necessary precautions should be taken to protect privacy and to do no harm.

Development began with a review of retrospective studies of factors associated with abuse and neglect: eg (Helfer, 1973; Schneider, et al., 1972 (a); Schneider, et al., 1972 (b); Solomon, 1973; Steele and Pollock, 1968). A series of drafts of questions concerning these factors were administered to successive small groups of prenatal clinic mothers over a 12 month period. The responses to each draft were used to select questions and refine clarity and objectivity. For both pilot and final interviews, the mother responded openly to each question instead of choosing from a list of answers. All answers were recorded during pilot studies so that predetermined categories could be used to score answers in the final interview.

Conducting the interview.

All mothers who registered for the prenatal clinic between September, 1975, and December, 1976 were asked to participate; 6.6% refused while the remaining 1,400 gave informed consent*

* This project was approved by the Vanderbilt Human Experimentation Committee.

and were interviewed. The mothers were surprisingly willing to reveal personal aspects of their lives and accepted the interview well with few exceptions.

The final interview was administered by 4 women who had college educations but minimal training in psychology. They were trained to reliability by one of us (PV). Reliability was tested every 4 months by pairing workers: one administered the interview while both recorded responses independently. Reliability was .90 or better. The interview was held during the inevitable waiting period in the prenatal clinic.

Selection of high and low risk groups.

The final interview was divided into 8 major categories: mother's perception of her nurture as a child; personality factors of self image, isolation, and tolerance to stress; social support available from others; positive and negative feelings about her pregnancy; knowledge of parent skills and philosophy about discipline; alcohol, drug and health problems in the family; expectations of child development; and the Life Stress Inventory of both the mother and father (Holmes and Rahe, 1967). A score was assigned to each response based upon arbitrary estimates of which answers were most likely to be associated with abuse or neglect. Scores were added within each category to yield 8 raw scores. After the questionnaire and scoring system were completed, 200 consecutive prenatal mothers were interviewed and results were

used to convert raw scores into percentiles for each of the 8 categories. A mother was subsequently classified as High Risk (HR) if she scored above the 95th percentile on any 2 of the 8, above the 99th percentile for any 1 of the 8, if the mean of all 8 percentiles was greater than 75, or if the interviewers recorded an observation which they felt could contribute substantially to abuse and neglect but was somehow missed by the interview. The interviewers were not aware of this or any other HR criteria. To determine whether the interview could predict parenting disorders, the incidence of these problems in HR mothers was compared to that in approximately 20% of all remaining mothers selected by random numbers (Low Risk or LR).

Assessment of parenting disorders in high and low risk families.

Non-organic failure to thrive (NOFT) was monitored in HR and LR groups, while all interviewed mothers were followed for reports of abuse or neglect. HR and LR children were examined and weighed at each sick and well child visit to the study hospital. Based upon those weights, NOFT was defined as growth retardation that could not be attributed to an organic disorder and therefore apparently due to inadequate feeding. As illustrated in Table I, failure to thrive was defined as a continuing weight gain of less than 2/3 of the Harvard 50 percentile curve (Vaughn, et al., 1975). The mothers of these patients were supported and counseled in the clinic; if this failed or growth retardation was severe,

the infants were hospitalized. The extent of diagnostic evaluation depended upon the history and physical exam and whether or not the child thrived with adequate feeding. All failure to thrive charts were reviewed by a physician; those without substantial growth failure or who had an organic abnormality that could explain the failure were excluded.

To assess child abuse or neglect in all interviewed mothers, lay workers reviewed cases that came before the Juvenile Court of Nashville and computerized data of all reports of child abuse and neglect in Tennessee. The average age of study infants was 12.8 months (range: 3-18 months) when abuse, neglect and NOFT data were obtained; ages of HR and LR infants were not different. All individuals involved in management of abuse, neglect and NOFT evaluation of subjects were blind to the subjects HR/LR status, as were the subjects.

RESULTS

Overview of the 1,400 mothers from interview data.

When developing a predictive tool, it is important to establish normative data for the population being studied. Most reported

child abuse comes from low socioeconomic families, and their life style may diverge from that of middle income families. If these differences are not taken into account, the predictive tool will not be tuned to the level or problems inherent in the population and an inappropriate number of individuals may be identified as high risk. An overview of all 1,400 prenatal parents is presented to illustrate some of their general characteristics.

The most prominent findings concerning the mother's nurture were her childhood family structure and the violence she experienced. Less than half of all prenatal patients lived with both mother and father throughout childhood, and about 1/3 were not with both original parents for most of this period. Fifteen percent had a complete change of parents once or more, and 3% were in foster care. When asked if "anyone who took care of you ever beat you up", 12% of the 1,400 answered yes. The father was responsible about half of the time, and 2/3 of the 12% indicated this happened 3 or more times; the same proportion received bruises. About 2% of the 1,400 said they were taken to a physician for injuries received from caretakers.

All interview responses were computer recorded so different responses could be correlated with each other. For example, we asked whether mothers reared in single parent or disrupted homes were more likely to be single parents when interviewed. Table II breaks down the age, racial, and marital status of the 1,400 prenatal patients and illustrates that single mothers were more likely to be younger and black; these variables were

therefore isolated. As illustrated in white mothers below 18 years (Table III), only 25% of all who were single lived with their mother and father throughout childhood compared to 42% of all who were married. Although the trend for mothers raised in single parent homes to be single at interview was consistent for black and white subjects above and below age 18 years, the differences were only significant for white mothers ($p < .001$ at both ages). White mothers reared in single parent families were also more likely to be age 17 or below when they registered for prenatal clinic ($p < .001$). These correlations may not be cause and effect because the interrelationships of behavior and environment are complex, and other factors may be responsible for these correlations.

Being battered during childhood can be correlated with other factors in the same manner: 9% of all mothers indicated that during childhood, a caretaker had beat them up (question 36) and hit them with an object or hand on parts of the body other than the legs, hands, or buttocks (question 34.) The proportion of the 1,400 describing abuse by both parameters was much higher in white (10.2%) than black (3.3%) mothers. The 95 white mothers answering both

questions as above were compared with the remaining 832 white mothers. Those who were battered did not have a significantly different attitude about their pregnancies (questions 6, 7, 9), but were significantly ($p < .01$) more isolated (questions 21, 22, 45), had a lower self image (question 43, $p < .01$), more stress (Life Stress Inventory, $p < .01$), and described less tolerance to an infant's cry (question 48, $p < .01$). When asked "have you lashed out at your children or someone else and done something that you have been sorry about later", 38% of those who were abused as children indicated they had recently hit someone with hands or an object other than on the legs, buttocks, or hands compared to 18% of the others ($p < .01$).

Questions dealing with the mother's isolation in all 1400 women indicated that 16.5% would prefer to be by themselves than with other people and about half of these did so because they did not trust others. Nineteen percent indicated either that no one was available to talk with about problems (5.6%) or that they did not want anyone (13.6%).

The social support available from others was variable. Single mothers anticipated much less help from the father than married mothers, and separation was high; 14% of all single mothers indicated they had separated before they discovered the pregnancy, 11% were still with the father but the pregnancy had weakened the relationship, and 14% said the father ended the relationship because of the pregnancy.

Black single mothers anticipated more support from fathers than did unmarried white mothers; 64% said their relationship was stronger or unchanged following the pregnancy compared to 42% of white mothers. Fifty-four percent anticipated help from the father after delivery, compared to 38% of white single mothers.

The most distinctive observation concerning feelings about the pregnancy was the small number of planned pregnancies; 69% of the 1,400 indicated they had not planned to become pregnant, and only 23% definitely planned this. Among all married mothers, the rate of unplanned pregnancy was still high (60%). The married mothers felt better about their pregnancies at the time of the interview, however. When asked "if you could go back and change things, would you still be pregnant", half of the single mothers and 24% of married mothers still preferred not being pregnant. In spite of the high incidence of unwanted pregnancy, relatively few mothers considered abortion (30%) or adoption (10%), and adoption was almost never considered by black mothers.

The concepts of parenting skills and discipline were striking in the dominance of violect techniques. When asked "what is the best way to get children to behave", only .4% of 1,400 suggested rewarding good behavior, 6.6% said they would reason with the child, and 3.7% recommended removing privileges. The remaining 89% preferred physical punishment. The incidence and severity of physical punishment also increased with parity. Techniques of

behavior modification were unknown or not accepted and there was no tendency to learn these by experience with previous children.

More than one-third of all mothers described alcohol or drug problems within their family, and 10% said this affected them now. These problems were more prevalent among married (41.3%) than single mothers (28.4%). Seven and one-half percent of all mothers said they had been physically harmed recently, and in most instances, the husband or boyfriend was responsible or they considered the injury serious. The interview data may provide some clues as to why many pregnant mothers were single since the overall advantages of marriage appeared mixed. Although the stability of the relationship with the father was better among married women and they had fewer financial concerns, the drug and alcohol abuse problems were greater. Fewer single mothers had been physically harmed recently, and more felt happy and generally better about themselves during their pregnancy.

Results of the remaining 2 interview categories are not illustrated in the appendix. Knowledge of development appeared to be the least useful part of the interview. It alone did not significantly correlate with HR status or any of the other 7 categories. This may be because the scoring system did not isolate responses indicating excessive expectations. The total number of stresses per mother was scored in the Life Stress Inventory. Black mothers reported significantly less ($p < .001$)

stress than white mothers. Total stress was not significantly different for single and married mothers.

Parenting disorders of high and low risk families.

Two hundred and seventy-three mothers were selected as HR while 225 were selected at random from all remaining subjects (LR). As illustrated in Table IV, about half of the HR subjects were placed in this category because they fulfilled a single criterion, while the remainder met more than one and 6 qualified by all 4 parameters. Fifty or 18% of HR subjects were identified solely by subjective comments of the interviewer. The rate of loss from the study could not be accurately measured because parenting disorders were monitored by clinic visits (most of which were not scheduled) and review of state wide abuse and neglect reports. We did make periodic home visits to assess the number immediately accessible, and by one year of age, about half the infants had been dropped or could not be found (Table V). The actual loss must have been much smaller since families would have had to leave Tennessee to be completely lost to the study. No differences in the overall availability of HR versus LR infants was apparent, but significantly more HR infants had been separated from their mothers; 24 HR and 9 LR children either died or their care had been relinquished by the mother ($p < .05$).

Mothers in the HR and LR groups were similar for most descriptive factors. Table VI indicates there were no significant differences in age, race, marital status, education or duration of pregnancy at the time of interview. The HR group did contain significantly more multiparous mothers. Although other children may put mothers at higher risk because of stress, the interview probably favored primiparous women because they had less opportunity for negative scores. LR and HR infants were not different in birth weight, percent below 5 pounds, 1 minute Apgar score or sex. More HR infants had birth weights above 9 pounds, but this may reflect the higher proportion of multiparous women in this category.

The incidence of NOFT in HR and LR infants is summarized in Table VII. Because data became less available as the infants grew older, the occurrence of NOFT is compared at each of 5 ages and at any age. This diagnosis was significantly more common in HR infants of every age group except the oldest, and was found at some time in 14% of HR and 4.2% of LR infants ($p < .01$). This should be considered a minimum rate since this diagnosis could have been missed in many (especially older) infants who did not return for weights. Although the interview was capable of predicting a HR population, the number of false positives (HR children without NOFT) and false negatives (NOFT in non-HR children) was relatively high. The proportion of all

NOFT that occurred in the HR group can be estimated: since the LR group was chosen at random from all non-HR subjects, the 4.4% rate for NOFT in LR infants indicates about 50 cases should have occurred in the 1,127 non-HR families. If so, the 38 expected cases in the HR group (14% X 273) would represent about 43% of all cases in the 1,400 families.

The incidence of reported abuse or neglect among all 1,400 families is summarized in Table VIII. Reports from Juvenile Court records and the state computer system were reviewed by one of us (W.A.A.) who was blind to the HR/LR status; those with no evidence of substance were discarded. Both subject children (infants born to the pregnancy present at the interview) and their siblings were reviewed; 7 of 12 abused HR and all 4 abused non-HR were subjects while the remainder were siblings. Reports were not included if the abuse or neglect occurred before the mother had been interviewed. Other than the above review, no attempt was made to estimate the likelihood that a given injury was accidental or non-accidental, or to identify the perpetrator because data were usually not sufficient to allow reliable judgements. The reports are divided into categories of abuse (with or without neglect), neglect (without abuse), and a category (other) for infants who required protective care while their parents were incarcerated.

The interview seems to be more effective in identifying families at risk for abuse than for NOFT, at least in these

preliminary data; three-fourths of all reported cases of abuse were in the HR group as was 52% of reported neglect. Altogether, 10.6% of HR and 2.3% of LR children were reported for some problem. If one adds those who had NOFT but were not reported, a total of 18.7% of all HR children had some evidence of a parenting disorder.

DISCUSSION

Relatively few attempts to predict families at high risk for parenting disorders have been reported in the past. Kempe (1976) used perinatal clues for prediction and reported success in both identifying a high risk population and preventing subsequent abuse. However, those who identified the parenting disorders were not always blind to the subject's risk status. Hunter, et al. (1978), successfully identified families at risk for subsequent parenting disorders among intensive care nursery patients. Her study was blinded except that high risk families were reported to social services after discharge from the nursery. Since the comparison group was not reported, the identification of maltreatment may have been based. The research described here was double blind since neither the subjects nor those evaluating parenting disorders were aware of risk status, and prediction was possible for abuse, neglect, and failure to thrive due to inadequate feeding. This last disorder appears to be a type of neglect (Powell, et al., 1967) and often results in developmental retardation if not corrected early in infancy (Hufton and Oates, 1977; and Chase and Martin, 1970). The interview described here will require

further development before it could have any practical potential; although some child abuse and neglect was almost certainly missed, the great majority of mothers identified as HR did not demonstrate evidence of parenting disorders by the time their children averaged one year of age, and about half who were reported for suspected neglect or had children with NOFT had not been identified as HR. The interview appeared most reliable in predicting physical abuse; three-fourths of all abuse reported after the interview occurred in the HR families. These latter data are based upon small numbers, and additional follow-up will be necessary for confirmation.

In all likelihood, the specificity and sensitivity of the interview could be improved by determining which questions correlate best with subsequent parenting disorders and redesigning the instrument. We have some preliminary data concerning which interview category was most important. Of the 8, the mother's nurture during childhood had the highest correlation with high risk selection (r .516). The values for the remaining categories were: mother's personality (.381); support systems (.332); pregnancy feelings (.217); parenting skills (.337); alcohol, drug and health stresses for the mother (.399); expectations of child development (.074); and life stresses for the mother (.353). Further evidence of the importance of nuture was derived by correlating abuse during childhood with other interview parameters.

When compared to all other white mothers, those who reported being battered as children felt significantly more isolated, had a poorer self-image, less tolerance to stress, and more had been physicall attacked recently. Finally, NOFT correlated significantly ($p < .05$) only with the categories of nurture ($r=.268$) and Life Stress Inventory of the mother ($r=.366$) and father ($r=.225$) in a randomly selected subpopulation from the 1,400 mothers described here (Altemeier, et al., 1978).

Prevention of parenting disorders so that abuse is not passed from parent to offspring through successive generations could solve these problems. A predictive tool offers an approach to this, especially if those at risk can be identified early enough to allow effective intervention. Unfortunately, prediction could also be misused. We believe that every possible precaution must be taken not to react in any negative way to parents identified as high risk. Overt or covert punitive or derogatory responses would not only be unfair but could increase parenting disorders by adding stress and altering self-esteem. Actually, prediction has no practical role until methods for prevention have been developed and proven effective. Ideally, this would be done by randomly dividing high risk families into experimental groups that are offered extra support of various types and control groups that receive the usual treatment; the

infants could then be followed by observers blind to risk status who can evaluate outcome. Whether prediction of child abuse and subsequent intervention is beneficial or harmful can only be determined by an experimental approach.

TABLE I

DEFINITION OF NON-ORGANIC FAILURE TO THRIVE (NOFT)

Over at least 10 days, the infants rate of weight gain was less than 2/3 of the Harvard 50 percentile curve and this growth failure was not caused by illness or a congenital anomaly.

0 -	14 days	-	Regain birth weight
15 -	60 days	-	.66 oz/day
61 -	270 days	-	.42 oz/day
271 -	360 days	-	.27 oz/day
361 -	540 days	-	.18 oz/day

TABLE II

Race, Age and Marital Status
of 1,400 Interviewed Mothers

33% Black	27% < 18	91% Single 9% Married, together 0% Divorced or Separated from Husband
	73% > 18	59% Single 9% Married, together 32% Divorced or Separated from Husband
67% White	25% < 18	25% Single 62% Married, together 13% Divorced or Separated from Husband
	75% > 18	12% Single 73% Married, together 15% Divorced or Separated from Husband

TABLE III

Childhood family structure of 1,400 prenatal patients related to age and marital status at interview.

	Age at Interview	% raised by mother and father until left home			% raised predominantly by a single parent		
		Single	Married	Divorced†	Single	Married	Divorced
Black	< 18	38	46	-	40	27	-
	> 18	33	54	27	39	29	40
White	< 18	25	42	-	42	24	-
	> 18	43	58	41	23	13	20

† Number of divorced mothers below age 18 was small and not included. Mothers separated from husbands at time of interview not included in Table. Single mothers were never married.

TABLE IV

Criteria used to select 273 HR mothers

	Only Criteria	1 Other	2 Other	3 Other	Total Times Criteria Fulfilled
Subjective identification	50	24	10	6	90
1 category > 99 percentile	49	46	40	6	141
2 categories > 95 percentile	33	55	42	6	136
8 categories average > 75 percentile	19	25	33	6	83

TABLE V

Loss of Study Infants†

	HR	LR
Total receiving interview	273	225
Total born at study hospital	247	206
Infants still in study		
at age 6 months	155	132
at age 12 months	133	104

Reasons for Loss

Could not locate (moved or false address)	38	27
Moved out of Nashville	30	28
Refused after birth	21	31
Did not deliver at Study Hospital	23	19
Fetal or nursery death	11	5
Refused after interview, before birth	8	5
Mother relinquished child (voluntary or court order)	10	2
Delivery before data collection started	7	0
False pregnancy	4	0
Death after nursery discharge	1	2
Adoption before nursery discharge	1	2

† as of June 1978

TABLE VI

DESCRIPTION OF HIGH RISK
AND LOW RISK SUBJECTS

	HIGH RISK	LOW RISK
Mothers	N = 273	N = 225
Mean Age	21.1	20.7
% White	73	68
% Married	51	59
Weeks pregnant at interview	21.1	20.7
% Primigravida	39	55**
Years education	10.1	10.4
Infants	N = 228	N = 200
Birth weight grams	3220	3163
Above 9#	18/227	5/220*
Below 5#	16/227	11/220
Apgar 1 minute	8.2	8.3
% Male	50	43

* $p < .05$ ** $p < .01$

TABLE VII

NOFT IN HIGH AND LOW RISK INFANTS

	# NOFT/# Children Weighed	
Age Days	High Risk	Low Risk
14 - 60	18/197 (9.1%)	4/180 (2.2%)**
61 - 130	15/159 (9.4%)	4/132 (3%)*
131 - 220	14/110 (13%)	2/110 (1.8%)**
221 - 315	11/70 (16%)	1/59 (1.7%)*
316 - 600	7/55 (13%)	2/41 (4.8%)
NOFT Any Age	28/205 (14%)	8/190 (4.2%)**

* $p < .05$ ** $p < .01$

TABLE VIII

INFANT OR SIBLING REPORTED TO JUVENILE AUTHORITIES

	273 High Risk Families	1127 Other Families
Abuse	12 (4.4%)	4 (.4%)**
Neglect	14 (5.1%)	13 (1.1%)**
Other	3 (1.1%)	9 (.7%)
Total Reported	29 (10.6%)	26 (2.3%)**
Reported NOFT or both	51 (18.7%)	

** $p < .01$; analysis based on t test between 2 Poisson distributions.

INTERVIEW FOR PRENATAL PATIENTS

All questions and scores assigned to answers are listed. The prefix preceeding each question identifies its category: PF, feelings about pregnancy; S, drug and health stresses; SS, social support available; P, personably factors of self image ect.; M.N., mother's nurture; a PS parenting skills. The responses of all prenatal patients are also listed. When percentages do not add up to 100%, the question was either directed at a subpopulation (only multips or only those who gave a specific answer to the preceding question) or answers were missing or uncodable.

Question	Answers	Score	% of 1400
1. PF. Would you like this baby to be a boy or girl, or does it matter?	1. doesn't matter if healthy	+1	12.6
	2. doesn't matter (or twins, boy & girl)	0	24.1
	3. boy	0	30.3
	4. girl	0	32.9
2. PF. Do you have a name for this baby? Probe: if answer simply "yes", probe to see if there's a name for both sexes	1. yes, or thought about	+1	41.8
	2. only if girl	0	11.9
	3. only if boy	0	10.8
	4. no (if < 7 mos. pregnant	0	29.9
	5. no (if ≥ 7 mos. pregnant	-1	5.7
3. PF. Have you done anything to prepare for this baby? Probe: if answer is "nothing" probe by offering possibilities since moms don't always consider borrowing things as "preparing"	1. made toys, furniture, etc.	+2	2.1
	2. bought things or read books	+1	24.6
	3. received things from others or had things from previous pregnancies	0	36.6
	4. nothing (if < 7 mos. pregnant)	0	34.1
	5. nothing (if ≥ 7 mos. pregnant)	-2	2.7
4. PF. Do you plan to breast feed or bottle feed the baby? Probe: if answer is "breast", ask "why?"	1. breast for baby's sake (close bond, baby's health)	+2	13.3
	2. undecided	0	8.4
	3. bottle	0	75.7
	4. breast for mom's sake (inexpensive, convenient)	-1	2.6
5. PF. Did you plan to get pregnant?	1. yes	+2	22.5
	2. "sort of"	+1	8.6
	3. no	-1	68.9
5b. PF. (If answer is yes) Why did you want to get pregnant?	1. reason other than own needs, or following custom	0	16.6
	2. for own needs (someone to love her, someone to possess)	-3	6.3
	Non-applicable		77.1
6. PF. What were your feelings when you first learned you were pregnant this time? Probe: if answer is "O.K." mom asked to "explain a little better", if still no adequate answer, the choices listed were offered	1. excited	+1	36.8
	2. mixed	0	16.8
	3. shocked	0	12.4
	4. responsibility	-1	4.3
	5. scared	-1	11.4
	6. depressed	-2	9.6
	7. don't want it	-3	8.2
7. PF. How do you feel now about having this baby? Probe: same as question 6	1. excited	+1	51.3
	2. mixed	0	23.2
	3. shocked	0	.4
	4. want it to come	0	8.8
	5. responsibility	-1	7.6
	6. scared	-1	4.4
	7. depressed or sick	-2	2.7
	8. don't want it	-3	1.4

Question	Answers		Score	% of 1400
8. PF. When you think of babies, what do you think of? What is the first thing that comes into your mind?	1. positive things		+1	47.2
	2. neutral things		0	23.4
	3. nothing		0	10.6
	4. mixed things		-1	8.4
	5. negative things		-3	10.1
9. PF. Have you, the father of the baby, or your mom suggested or considered abortion for this pregnancy? (If yes) Was it a passing thought or did you seriously consider it? Who thought of it? (Then) And what about adoption? (Using same follow-up if yes)	1. no	either adoption or abortion	0	75.7
	2. fleeting thought		-1	5.5
	3. yes definitely		-3	18.8
			Adoption/	Abort
	1. she has		2.2	9.6
	2. father of baby has		.6	2.5
	3. mother has		1.2	5.6
	4. she & mother		.4	1.7
	5. father & mother		.1	.5
	6. she and father		.2	1.8
	7. all of them		.1	.6
	Non-applicable		95.1	77.6
10. PF. If you could go back and change things, like magic, would you be pregnant?	1. yes		+1	59.9
	2. questionable		0	6.4
	3. no		-1	33.5
11. PF. Since you've been pregnant, do you feel depressed most of the time, happy most of the time, or does your mood change a great deal from happy to sad?	1. happy		+2	19.2
	2. swings or normal		0	63.4
	3. nervous		-1	1.1
	4. grouchy		-1	2.9
	5. sick		-1	2.8
	6. depressed on lonely		-3	10.6
12. P. Before you ever had any children, did you often feel lonely or depressed?	1. no		0	57.7
	2. sometimes		-1	10.1
	3. yes		-3	32.1
13. PF & S. Do you feel you have enough money to buy the things that you need for your family, including the baby you're about to have?	1. enough		+1	38.2
	2. not enough, but not worried		0	28.9
	3. no		-1	32.9
14. PF & S. (for multiparas) Do you sometimes feel you just don't have enough time for yourself - that one baby seems to come so soon after another that it leaves you worn out and without time to plan?	1. no		+1	37.9
	2. sometimes		0	3.8
	3. yes		-1	8.5
	Non-applicable			49.9
15. PF. (for primips) Do you think you're ready to be a mother, or do you sometimes wish you weren't having a baby so soon?	1. ready		+1	30.1
	2. both		0	8.2
	3. wish waited		-1	11.3
	Non-applicable			50.4

Question	Answer	Score	% of 1400
6. SS. What are the father of the baby's feelings about having the baby? Probe: if mom says "o.k." ask "how do you think he feels?" or "how did he act when he found out?"	1.happy	+1	55.7
	2.mixed	0	16.0
	3.responsibility or worried about money	0	8.1
	4.he doesn't know (she's pregnant)	-1	5.6
	5.doesn't want it	-2	8.8
	6. wants girl	0	1.5
	7. wants boy	0	3.4
7. SS. How well do you and the father of the baby get along or not get along, most of the time? Probe: If mom can't verbalize answer, use rating scale "If you had to rate it on a scale from 1 to 5, 1 being great and 5 being the worst, where would you put it?	1.close	+1	17.7
	2.OK	0	53.7
	3.don't get along	-2	7.9
	4.separated	-2	15.4
	Non-applicable		5.2
	1 (Rating Scale)	+1	1.0
	2 (Rating Scale)	0	2.5
	3 (Rating Scale)	0	1.2
	4 (Rating Scale)	0	.1
	5 (Rating Scale)	-2	.1
8. SS. How has this pregnancy changed your relationship? Are you closer together or has it caused problems?	1.closer	+1	34.9
	2.same	0	42.7
	3.too early to know	0	1.1
	4.separated already	-1	7.1
	5.farther	-2	7.6
	6.pregnancy caused parents to separate them	-2	.5
	7.pregnancy caused father to separate from mom	-3	5.6
9. SS. Do you feel that the father of the baby will help take care of the child?-play with him/her, change diapers, feed him/her? Probe:if answered simply"no" probe to see if answer is 4 or 5.	1.yes	+2	64.5
	2.qualified yes	+1	15.4
	3.don't know	0	5.9
	4.don't want him to	-1	2.6
	5.no, he won't	-2	11.2
10. SS. Will anyone else be helping you take care of the baby?	1.someone (adult)	+1	67.9
	2. someone(child<11 years old)	0	1.0
	3.no one	-1	31.0
11. SS.& P. Who do you talk to about your problems most of the time? Probe: if answered "nobody" probe to see if answer is 5 or 6	1.husband	+2	22.2
	2.family	+1	41.0
	3.friends(answers ranging from God to pets)	+1	15.6
	4.professional(pastors,social workers,etc.)	0	1.8
	5.no one availabe	-3	5.6
	6.don't want anyone	-3	13.6
12. SS.& P. If you needed help, do you have friends around other than your parents who would help you?	1.yes	+1	68.8
	2. yes, but not here	0	2.9
	3.family alone	-1	15.4
	4.no	-2	13.0

Question	Answer	Score	% of 1400	
23. SS. Have any of the people you thought were your friends ever turned on you or against you?	1.no	0	73.0	
	2.sometimes	0	5.0	
	3.yes	-2	21.9	
24A. MN. Who did you live with while you were growing up? Probe: if childhood included more than one living situation, most predominant (longest) was scored.	A. 1.mom and dad		68.9	
	2.grandparents (or male & female relatives)		4.9	
	3.one parent		23.9	
	4.foster home		1.9	
	5.adoption agency		.4	
24B. MN. Did you grow up with your parents or were you separated from either one of them for long periods of time? Scoring: most negative was scored.	B. 1.two parents until left home	+2	47.4	
	2.one parent	0	9.6	
	3.changed 1 parent or transient disruption	-1	25.6	
	4.complete change parents once	-2	9.1	
	5.complete change parents more than once	-3	5.7	
	6.institution	-3	2.7	
25. MN. Would you like to be the same kind of mother that your mother (or substitute) was to you? Scoring: if multiple moms, predominant one was scored.	1.yes	+2	50.2	
	2.mom she was with most, yes, but other moms, no	+1	3.6	
	3.in some ways	0	21.1	
	4.no	-2	24.4	
26 & 27. MN. How well would you say that you and your mom (question 26)/dad (question 27) got along? Probe: If can't verbalize, use rating scale: "If you had to rate on a scale from 1 to 5, 1 being very good feelings and 5 very bad, where would you place her/him?"			Mom	Dad
	1.close	+1	22.9	19.6
	2.OK	0	51.2	40.6
	3.don't get along	-2	17.9	21.6
	4.separated	-2	.6	6.5
	1	+1	2.1	1.6
	2	0	1.5	1.1
	3 Rating Scale	0	1.9	1.6
	4	0	.4	.9
	5	-2	.8	.5
28. MN. If other major parent figures, how would you rate them? Actual wording: "What about (name people discovered by question 24)"? Probe: same as question 27. This question allows for 2 more parent figures.	1.close	+1	6.0	2.3
	2.OK	0	13.4	5.2
	3.don't get along	-2	9.0	4.1
	4.separated	-2	1.4	.5
	1	+1	.2	.1
	2	0	.3	.1
	3 Rating Scale	0	.1	0
	4	0	.1	0
	5	-2	0	0
29. MN. Was your childhood happy in general or unhappy, or in between?	1.happy	+1	55.1	
	2.both	0	36.1	
	3.unhappy	-2	8.6	

Question	Answer	Score	% of 1400
30. MN. Do you feel you were loved as a child?	1.yes	+1	68.4
	2.qualified yes	-1	8.6
	3.one parent did, 1 parent didn't	-1	14.5
	4.no	-2	8.5
31. MN. Did you feel your parents were pleased with you or did they seem to feel you could never do anything right?	1.pleased	+1	60.0
	2.in some ways	0	14.4
	3.one parent did, one parent didn't	-1	12.8
	4.never right	-2	10.9
	5.both parents indifferent	-2	1.5
32. MN. Do you feel that you have let your parents down?	1.no	+1	58.6
	2.somewhat, or at some point	0	22.3
	3.yes	-1	18.7
33. MN. Did children make either of your parents nervous? For example, did they yell at you or punish you for small things? Did they take their anger out on you? Probe: if answer yes, ask: "one or both parents?"	1.no	+1	62.9
	2.nervous, but didn't take it out on child	0	5.0
	3.yes, 1 parent	-1	21.5
	4.yes, 2 parents	-2	10.4
34. MN. How were you punished as a child?	1.talk only	+1	1.3
	2.remove privileges	+1	3.1
	3.nothing/spank hands	0	.6
	4.hit w/ hand only to bottom or legs only		
	-rarely	+1	
	-other	-1	12.2
	5.hit w/object on legs or bottom only		
	-rarely	-1	
	-other	-2	52.7
	6.hit w/hand only to body other than bottom or legs		
	-rarely	-2	
	-other	-3	12.4
	7.hit w/object on body other than bottom or legs		
	-rarely	-3	
	-other	-4	16.4
	8.unreasonable but not traumatic punishment		
	-rarely	-1	
	-other	-2	.2

Question	Answer	Score	% of 1400
35. MN. Did you feel like you were punished unfairly? Scoring: "minor" = +1 on question 34 "severe" = -1 or worse, question 34	A.1.no		49.0
	2.sometimes		17.6
	3.yes		33.1
	B.1.no or sometimes & minor punishment	0	13.3
	2.yes, minor punishment	-1	3.4
	3.no or sometimes & severe punishment	-2	49.9
	4.yes, severe punishment	-3	30.2
36. MN. Did anyone who took care of you (including brothers and sisters) ever beat you up? A. Who?	A.1.no one	0	88.2
	2.sibling or relative	-2	1.8
	3.father (or substitute)	-4	5.6
	4.mother (or substitute)	-4	3.1
	5.both mother/father (or substitute)	-4	.8
	6.a parent and another person	-4	.3
B. How often?	B.1.sort of	-2	.5
	2.once or twice	-3	3.6
	3.more than twice	-4	7.6
C. Did you ever get broken bones, need stitches, have to see a doctor for these things?	C.1.no	0	1.8
	2.yes, bruises	-2	7.6
	3.yes, bones/stitches/or bruises that required seeing a doctor	-4	2.3
37. S. A.Are there any drinking problems or drug problems in your family or childhood family? B.(if yes) Is it fouling up things for you?	A.1.no	0	62.7
	2.yes		37.3
	B.1.no	0	10.1
	2.yes, but not now	-1	19.0
	3.yes	-2	8.4
	4.father of the baby (only if living with the mother)	-3	1.1
	5.mom (interviewee)	-4	.4
38. S. What about your other children? Are they happy and healthy or have they ever had any physical problems or defects, or behavior or social problems? Probe: actual wording asked about any problems that really worried mom; response then probed for above areas.	1.no other children	0	49.5
	2.healthy	0	27.9
	3.social problems	-1	1.1
	4.behavior problems	-1	1.1
	5.physical, minor, anytime	-1	9.1
	6.physical, major, in past	-2	8.6
	7.physical, major, now	-3	2.7
39. S.P. If you could change anything you wanted to like magic what would you change about yourself or your life situation?	1.nothing	+1	35.7
	2.minor	-1	13.8
	3.problem not related to pregnancy	-2	42.4
	4.problem related to pregnancy	-3	7.0

Question	Answer	Score	% of 1400
40. S. Has anyone physically harmed you recently, hit you or pushed you around?	1.no	0	92.5
	2.yes, other	-1	2.2
	3.yes, husband/boyfriend/serious injury	-3	4.9
41. P. Does it spoil your day when someone criticizes you or puts you down?	1.no	+1	51.9
	2.sometimes	0	15.3
	3.yes	-1	32.7
42. P. How would you describe yourself, usually successful or unsuccessful?	1.successful	+1	53.5
	2.both	0	29.6
	3.unsuccessful	-2	16.4
43. P. Do you generally feel good or bad about yourself?	1.good	+1	58.7
	2.both	0	31.4
	3.bad	-2	9.6
44. P. Do you feel that in general you get out often enough to have fun?	1.yes	+1	65.0
	2.sometimes	0	5.3
	3.no	-1	29.7
45. P. Are you a friendly person who likes to be with people, or would you rather keep to yourself? Probe: if answer is "keep to self" ask "Is it because you don't trust people?"	1.friendly	+1	61.9
	2.both	0	21.6
	3.keeps to self	-1	8.9
	4.keeps to self because people not trustworthy	-2	7.6
46. P. What is more important to you- to love or to be loved?	1.to love	0	41.9
	2.both	0	27.4
	3.to be loved	-2	30.4
47. P. Who makes the decisions in your household?	1.she does	not scored	23.6
	2.both		30.7
	3.husband/boyfriend		23.6
	4.her mother		14.1
	5.other		8.0
48. PS. How do you feel when you hear a screaming baby?	1.want to comfort	+1	46.1
	2.doesn't bother her	0	19.8
	3.nervous	-1	28.0
	4.angry	-2	5.1
49. PS. What would you do to get a screaming child under a year old to quit crying?	1.see what's wrong	+1	29.4
	2.give comfort	+1	56.7
	3.let cry	0	2.4
	4.inappropriate, but not punitive	-1	9.4
	5.inappropriate and punitive	-3	1.5

Question	Answer	Score	% of 1400
50. PS. (Ask only if answer to 49 is "1") Suppose you check the child and find there's nothing wrong, but he still is crying. What would you do then?	1.give comfort	+1	19.6
	2.let cry	0	5.1
	3.inappropriate, not punitive	-1	3.2
	4.inappropriate, punitive	-3	.4
	Not applicable		71.6
51. PS. At what age do you have to worry about a child being too sexy?	1.you don't	0	13.4
	2.after 4 years	0	73.9
	3.between 2 and 4 years	-1	3.0
	4.before 2 years	-3	.7
	5.don't know	no score	8.6
52. PS. Say you were feeling tired and sick one day. You spent all day playing with your child and then you really wanted to lie down and rest. But your child kept hanging on to you and whining and wouldn't let you lie down. What would you do? Probe: (if primip) "What do you think you'd do?")	1.handle herself, nonpunitive	+1	76.2
	2.get help	+1	11.4
	3.punitive	-2	10.3
3. PS. In general, what do you think is the best way for moms to get their children to behave? Do you think you ever need to spank? Scoring: score most negative.	1.reward good behavior	+2	.4
	2.talk to or nothing	+1	6.6
	3.remove privileges	+1	3.7
	4.spank hands	0	6.0
	5.hit w/hand only to bottom or legs	-1	47.2
	6.hit w/object on bottom or legs	-2	31.7
	7.hit w/hand only to body other than bottom/legs	-3	1.5
	8.hit w/object on body other than bottom/legs	-4	.6
4. PS. Have you gotten so angry that you've lashed out at your children or someone else and done things that you've been sorry about later? Probe: (if yes) What did you say or do?	1.no	+1	22.7
	2.talk or yell	0	53.1
	3.remove privileges	0	.2
	4.answer 4/5, question 53	0	2.4
	5.answer 6, question 53	-2	1.7
	6.answer 7, question 53	-3	9.1
	7.answer 8, question 53	-4	9.6
55. PS. (Only asked of multips) Have you ever had moments of fear that you might hurt your child? Scoring: if answer meant accidental harm, scored as "no".	1.no	0	36.5
	2.sometimes	-1	2.6
	3.yes	-2	11.7
	not applicable		49.1
56. PS. (Only multips) Have all of your children always lived with you? Do they now? Probe: according to circumstances, "Why taken away? Who is child with now?"	1.yes	+1	42.4
	2.mostly or recently	0	2.9
	3.no, w/relatives	-1	3.4
	4.no, in foster home	-2	1.1
	5.no, taken for protection	-2	.7
	6.possible avoidable death after one week of age	-3	.5

LIFE STRESS INVENTORY

This inventory was scored by awarding 1 point for each occurrence of each stress over the past year for the mother (all questions) or the father (those with *). Maternal and paternal stresses were scored independently.

1.* Begin a new job or changed jobs. 2.* Being fired. 3.* Troubles with boss. 4.* Leaving your job (but not fired). 5. Arguments or problems with father of the baby. 6. Separation from father of the baby. 7. Divorce. 8. Marriage. 9. Make-up with father of the baby (or mother's or father's family) after separation. 10. Trouble with father of baby's family or your own family. 11. A new baby in family (not counting your pregnancy now). 12. Have you become more worried about money? 13. Borrow or owe more than $100. 14.* Accidents or bad health problem not from pregnancy. 15.* Change for the worse in the health of a family member. 16.* Death of a close friend. 17.* Death of anyone in family. 18. Death of baby's father. 19.* How many times have you moved? 20.* Been arrested or in jail. 21.* Dropping out of school.

KNOWLEDGE OF DEVELOPMENTAL NORMS

Answers above the acceptable range (shown in parenthesis) were scored -1, while those below (expectations too high) were scored -2. Answers in acceptable range were scored 0.

1. When can you first expect a smile from the baby? (3-8 weeks) 2. How old do you think most babies are when they can sit alone without support? (6 mo.-10 mo.) 3. You can expect baby to stand up when you help or he may even pull himself up by using furniture at about how many months? (8 mo.-14 mo.) 4. How old is he when he takes his first steps without help? (9 mo.-24 mo.) 5. When is a good time to start potty training to help baby to stay dry? (12 mo.-3 yrs.) 6. When do you think baby will be trained to have bowel movement on the toilet or potty regularly, with only occasional "accidents"? (2 yrs.-3 yrs.) 7. How old do you think your baby will be when he says his first real word--something more than dada? (7 mo.-16 mo.) 8. When will a baby be old enough to stop doing something when you say "no no"? (6 mo. or over) 9. When a baby doesn't have any reason to cry, that is, he's fed and dry, how much crying can you expect? (Maybe it depends on the baby or you can expect a lot of crying.) 10. How old will your baby be when he knows he did something naughty? (18 mo. or over) 11. When can you expect your child to eat by himself with a spoon? (6 mo.-18 mo.) 12. At what age will a child understand not to touch something he's not supposed to touch? (6 mo. or over) 14. At what age can you expect children to be polite--when will they say please and thank you? (2 yrs. or over) 15. At what age can a child first learn to stay quiet when you are sleeping? (18 mo. or over) 16. When do you think babies will begin to crawl on all fours? (6 mo.-14 mo.)

COMPARISON OF REPORTS TO PROTECTIVE SERVICES FOR HIGH RISK VRS ALL REMAINING SUBJECTS[τ]

	HR 273 Subjects	Others 1120 Subjects
Legal Separation of Mother and Infant	7 (2.6%)	7 (.6%)*
Reported for Abuse	17 (6.2%)	10 (.9%)***
Abandonment	3	11
Neglect	22 (8.1%)	24 (2.1%)***
Not Related to Child	2	6
Any Referral	39 (14.3%)	40 (3.6%)***

[τ] Reports of incidents that occurred after the interview and concerned child subjects or their siblings.

Difference significant at $p < .05$*; $p < .01$**; $p < .001$***.

COMPARISON OF REPORTS TO PROTECTIVE SERVICES FOR HIGH RISK VRS LOW RISK SUBJECTS[τ]

	HR 273 Subjects	LR 225 Subjects
Legal Separation of Mother and Infant	7	2
Abuse	17 (6.2%)	1 (.4%)***
Abandonment	3	4
Neglect	22 (8.1%)	6 (2.7%)**
Not Related to Child	2	2
Any Referral	39 (14.3%)	10 (4.4%)***
Referral and/or Non-Organic Failure to Thrive	59 (21.6%)	16 (7.1%)***

τ Reports of incidents that occurred after the interview and concerned child subjects or their siblings.

Difference significant at $p < .05$*; $p < .01$**; $p < .001$***.

REFERENCES

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ALTEMEIER, W. A., VIETZE, P. M., SHERROD, K. A., SANDLER, H. M., & O'CONNOR, S. M. (1978), Prospective study of factors predisposing to non-organic failure to thrive. Abstract. Pedia. Res., 12:367.

CHASE, H. P. & MARTIN, H. P. (1970), Undernutrition and child development. New Eng. J. Med., 282:933-939.

HELFER, R. M. (1973), The etiology of child abuse. Pediatrics, 51:777-779.

HOLMES, T. & RAHE, R. (1967), The social readjustment rating scale. J. Psychosom. Res., 11:213-218.

HUFTON, I. W. & OATES, R. K. (1977), Non-organic failure to thrive, Pediatrics, 59:73-77.

HUNTER, R. A., KELSTROM, N., KROYHILL, E. N., & LODA, F. (1978), Antecedents of child abuse and neglect in premature infants, Pediatrics, 61:629-635.

KEMPE, H. C. (1976), Approaches to preventing child abuse, Amer. J. Dis. Child., 130:941-947.

LIGHT, R. J. (1973), Abused and neglected children in America, Harvard Educational Review, 43:556.

POWELL, G. E., BRASEL, J. A., & BLIZZARD, R. M. (1967), Emotional deprivation and growth retardation simulating idiopathic hypopituitarism. I. Clinical evaluation of the syndrome, New Eng. J. Med., 276:1271-1278.

SCHNEIDER, C., HELFER, R. E., & POLLOCK, C. (1972 a), The predictive questionnaire. In: Helping the Battered Child and his Family. ed. C. H. Kempe and R. E. Helfer, Philadelphia: J. B. Lippincott, pp. 278-282.

SCHNEIDER, C., POLLOCK, C., & HELFER, R. E. (1972 b), Interviewing the parents. In: Helping the Battered Child and his Family. ed. C. H. Kempe and R. E. Helfer, Philadelphia: J. B. Lippincott, pp. 55-65.

SOLOMON, T. (1973), History and demography of Child Abuse. Pediatrics, 51:773-776.

STEELE, B. F. & POLLOCK, C. B. (1968), A psychiatric study of parents who abuse infants and small children. In: The Battered Child. ed. R. E. Helfer and C. H. Kempe. Chicago: University of Chicago Press, pp. 103-147.

VAUGHAN, V. C., MCKAY, R. J., & NELSON, W. E. (1975), Nelson's Textbook of Pediatrics. Philadelphia, W. B. Saunders Co.

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